Center Independent Research & Development: GSFC IRAD

CubeSat Capabilities for Space Science Missions

Completed Technology Project (2012 - 2013)

Project Introduction

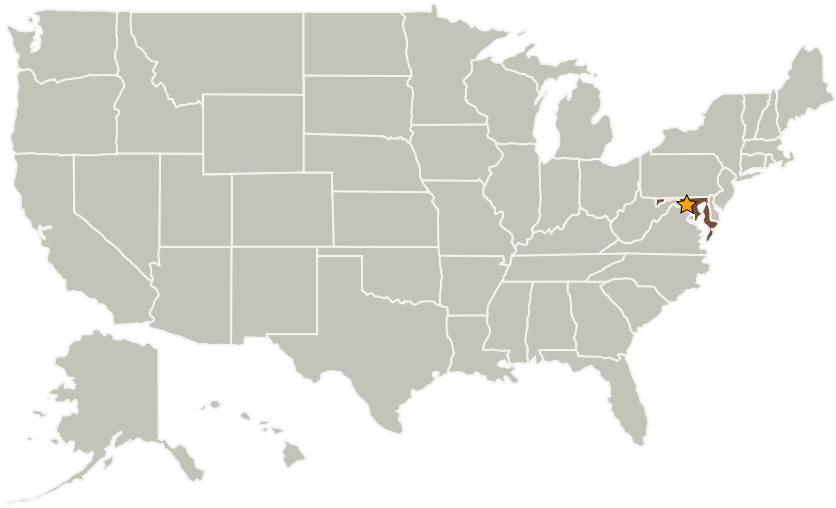
The CubeSat Capabilities for Space Science Missions provides an assessment of current CubeSat capabilities and identifies the advanced technology needed to support Solar System exploration missions.

The CubeSat Capabilities for Space Science Missions combines science and engineering talent at Goddard Space Flight Center and the Wallops Flight Facility to understand requirements and contraints for the science-driven Cubesat framework. The project prototype design incorporates current capabilities, as well as, capabilities expected to be available 2018 - 2023.

Anticipated Benefits

Low cost, low mass and low power missions.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Goddard Space Flight Center(GSFC)	Lead Organization	NASA Center	Greenbelt, Maryland

Primary U.S. Work Locations
Maryland

CubeSat Capabilities for Space Science Missions

Table of Contents

Organizational Responsibility

Responsible Mission Directorate:

Mission Support Directorate (MSD)

Lead Center / Facility:

Goddard Space Flight Center (GSFC)

Responsible Program:

Center Independent Research & Development: GSFC IRAD

CubeSat Capabilities for Space Science Missions

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Project Management

Program Manager:

Peter M Hughes

Project Manager:

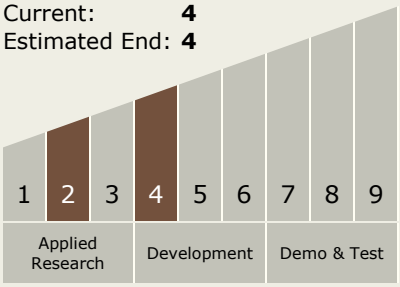
Brook Lakew

Principal Investigator:

Robert J Macdowall

Technology Maturity (TRL)

Start: **2**
Current: **4**
Estimated End: **4**



Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.1 Remote Sensing Instruments/Sensors
    - TX08.1.4 Microwave, Millimeter-, and Submillimeter-Waves